WHAT IS CLAIMED IS:

1. A method of patterning an attenuated phase-shifting mask, comprising:

providing a mask blank, wherein the mask blank has an attenuating and phase-shifting layer formed over a transparent layer, the phase-shifting layer having an initial thickness, wherein the initial thickness of the phase-shifting layer is adapted to provide a first predetermined phase shift for a first wavelength of light passing therethrough;

reducing the initial thickness of the phase shifting layer to a first thickness; and

removing portions of the phase-shifting layer to form a pattern of clear areas, wherein the first thickness of the phase-shifting layer at dark areas is adapted to provide a second predetermined phase shift for a second wavelength of light passing therethrough relative to the same light of the second wavelength passing through the clear areas, wherein the first wavelength differs from the second wavelength.

2. The method of claim 1, further comprising:

removing portions of the transparent layer to form a recess with a first recess depth at the clear areas.

3. The method of claim 2, wherein the portions of the transparent layer are removed by reactive ion etching using an etch chemistry including at least one of SF_6 and CF_4.

4. The method of claim 1, wherein part of the phase-shifting layer with a second thickness remains at the clear areas, wherein the second thickness is less than the first thickness.

5. The method of claim 1, wherein the second predetermined phase shift is approximately equal to or greater than the first predetermined phase shift.

6. The method of claim 5, wherein the second wavelength is greater than the first wavelength.

7. The method of claim 1, wherein the first predetermined phase shift is about 180 degrees.

8. The method of claim 1, wherein the second predetermined phase shift is equal to or greater than about 180 degrees.

9. The method of claim 1, wherein the initial thickness of the phase-shifting layer is adapted to provide a first optical transmission for light of the first wavelength, and wherein the first thickness of the phase-shifting layer at the dark areas is adapted to provide a second optical transmission.

10. The method of claim 9, wherein the second optical transmission is less than or equal to about 6%.

11. The method of claim 1, wherein the transparent layer comprises a quartz material.

12. The method of claim 1, wherein the initial thickness of the attenuation and phase-shifting layer is reduced by reactive ion etching using an etch chemistry including at least one of SF_6 and CF_4.

13. A method of making a patterned attenuated phase-shifting mask from a mask blank, the mask blank including an attenuation and phase-shifting layer with a first default thickness and a transparent layer with a second default thickness, the attenuation and phase-shifting layer covering the transparent layer, the method comprising:

forming a circuit design pattern that includes forming a plurality of clear areas and forming a plurality of dark areas;

wherein the forming dark areas includes reducing a thickness of the attenuation and phase-shifting layer from the first default thickness to a first adjusted thickness; and

wherein forming clear areas includes:

removing portions of the attenuation and phase-shifting layer at clear areas, and

reducing a thickness of the transparent layer at the clear areas from the second default thickness to a second adjusted thickness.

14. The method of claim 13, wherein the transparent layer comprises a quartz material.

15. The method of claim 13, wherein the attenuated phase-shifting mask is designed for light with a target wavelength, and wherein the first adjusted thickness and the second adjusted thickness are designed so that the phase of light passing through dark areas differs from the phase of light passing through clear areas by a predetermined phase shift.

16. The method of claim 15, wherein the predetermined phase shift is about 180 degrees.

17. The method of claim 13, wherein the attenuated phase-shifting mask is designed for light with a target wavelength, and wherein the first thickness is designed so that light passing through dark areas has a predetermined optical transmission.

18. The method of claim 17, wherein the predetermined optical transmission is between about 5% and about 15%.

19. The method of claim 17, wherein the predetermined optical transmission is between about 2% and about 20%.

20. The method of claim 13, wherein the thickness of the attenuation and phase-shifting layer is reduced by etching.

21. The method of claim 20, wherein the etching of the attenuation and phase-shifting layer includes reactive ion etching.

22. The method of claim 21, wherein the reactive ion etching uses an etching chemical selected from a group consisting of SF_6 and CF_4.

23. The method of claim 13, wherein the portions of the attenuation and phase-shifting layer are removed by etching.

24. The method of claim 23, wherein the etching of the attenuation and phase-shifting layer includes reactive ion etching.

25. The method of claim 24, wherein the reactive ion etching uses an etching chemical selected from a group consisting of SF_6 and CF_4.

26. The method of claim 13, wherein the thickness of the transparent layer is reduced at the clear areas by etching.

27. The method of claim 26, wherein the etching of the transparent layer includes reactive ion etching.

28. The method of claim 27, wherein the reactive ion etching uses an etching chemical selected from a group consisting of SF_6 and CF_4.

29. An attenuated phase-shifting mask comprising:

a transparent layer;

an attenuating and phase-shifting layer over the transparent layer;

dark areas having the phase-shifting layer at a first thickness; and

clear areas having the phase-shifting layer removed therefrom and having a recess of a recess depth formed in the transparent layer, wherein the first thickness at the dark areas and the first recess depth at the clear areas are chosen such that a certain phase-shift and transmittance is provided for light through the dark areas relative to the clear areas.

30. The attenuated phase-shifting mask of claim 29, wherein the transparent layer comprises quartz.

31. The attenuated phase-shifting mask of claim 29, wherein the attenuated phase-shifting mask is made from an attenuated phase-shifting mask blank having an attenuation and phase-shifting layer with an initial thickness greater than the first thickness at the dark areas.

32. The attenuated phase-shifting mask of claim 31, wherein the mask blank is designed for light with a first wavelength, but the attenuated phase-shifting mask formed therefrom is designed for light with a second wavelength, wherein the second wavelength differs from the first wavelength.

33. The attenuated phase-shifting mask of claim 32, wherein the second wavelength is smaller than the first wavelength.

34. The attenuated phase-shifting mask of claim 29, wherein the certain phase-shift is equal to or greater than about 180 degrees, and wherein the certain transmittance is less than or equal to about 6%.

35. An attenuated phase-shifting mask comprising:

a transparent layer;

an attenuating and phase-shifting layer over the transparent layer;

dark areas having the phase-shifting layer at a first thickness; and

clear areas having the phase-shifting layer at a second thickness, wherein the first thickness at the dark areas is greater than the second thickness at the clear areas, and wherein the first thickness and second thickness are chosen such that a certain phase-shift and transmittance is provided for light through the dark areas relative to the clear areas.

36. The attenuated phase-shifting mask of claim 35, wherein the attenuated phase-shifting mask is made from an attenuated phase-shifting mask blank having an attenuating and phase-shifting layer with an initial thickness greater than the first thickness at the dark areas.

37. The attenuated phase-shifting mask of claim 36, wherein the mask blank is designed for light with a first wavelength, but the attenuated phase-shifting mask formed therefrom is designed for light with a second wavelength, wherein the second wavelength differs from the first wavelength.

38. The attenuated phase-shifting mask of claim 37, wherein the second wavelength is smaller than the first wavelength.

39. The attenuated phase-shifting mask of claim 35, wherein the certain phase-shift is equal to or greater than about 180 degrees, and wherein the certain transmittance is less than or equal to about 6%.